



# Mission Support Alliance

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## Statement of Work

*for PSRP Meteorology Professional Services & Support Contract*

**Title: MOD68-T&M Lifecycle Support**

**Revision Number: 0**

**Date: 03 February 2011**

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### Acronyms

**BTR** – Buyer’s Technical Representative

**C&HRP** - Cultural and Historic Resource Program (C&HRP)

**EM&C** - Ecological Monitoring and Compliance

**ES** - Environmental Surveillance

**HEO** - Hanford Environmental Oversight

**M&CS** - Meteorological and Climatological Services

**PSRP** - Public Safety and Resource Protection

**SM** - Seismic Monitoring

### **1.0 INTRODUCTION / BACKGROUND**

The subcontractor is required to provide technical support services as set forth herein.

### **2.0 OBJECTIVE**

The Public Safety and Resource Protection (PSRP) programs at Hanford provide an array of environmental and safety related services and recordkeeping that are critical to protecting the health and safety of Hanford workers, the public, and the environment. The programs are divided into six interrelated components:

- Hanford Environmental Oversight (HEO)
- Meteorological and Climatological Services (M&CS)
- Environmental Surveillance (ES)
- Ecological Monitoring and Compliance (EM&C)
- Cultural and Historic Resource Program (C&HRP)
- Seismic Monitoring (SM)

MSA is soliciting for specialized skills and labor categories defined in Section 3 for the Meteorological and Climatological Services (M&CS) statement of work specific to the PSRP.



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### 3.0 DESCRIPTION OF WORK – SPECIFIC

The Subcontractor shall support MSA in the operation of the Hanford Meteorological Monitoring system and shall be able to provide detailed around-the-clock, easily retrieved and understood, real time meteorological data for DOE and Hanford Site contractors. The Subcontractor shall have the capability to provide support to MSA with the following services, as required:

- 24/7 operation of the meteorological monitoring system.
- Maintain the meteorological monitoring system, including appropriate quality assurance and quality controls.
- Support emergency response activities with up to date meteorological data and forecasts in the event of an accidental radiological or chemical release.
- Operate and maintain the Meteorological and Climatological Services computer network.
- Provide weather forecasts in support of routine and special site operations to include general weather, production, tank farm, telemetry, adverse weather, and special forecasts, as required.
- Detect adverse weather that may affect safety of site workers (strong winds, thunderstorms, extreme cold, and snow events) and provide timely communication of this information to site contractors and DOE.
- Monitor/report heat stress data and provide this information to site contractors in support of site cleanup activities.
- Provide heat stress information to requesting Hanford Site contractors within 30 minutes of the request.
- Operate the Met Viewer data display system and APGEMS (Air Pollutant Graphical Environmental Modeling System) interactive transport and diffusion computer model.
- Provide specialized meteorological information to site contractors in support of cleanup and operations (e.g., building demolition, reactor compartment transport, special construction projects, and tank vapors studies).
- Produce data for annual potential radiological exposure assessment.
- Produce data for interactive atmospheric models in support of emergency response activities.
- Assure that data are available for the annual estimation of potential public radiation exposure.
- Assure that the comprehensive climatological data records are maintained for use in a variety of other applications, such as post-accident analysis, dose reconstruction, building design, and environmental impact assessment.
- Maintain historical climatological data base to respond to special requests in support of site activities, such as:
  - Dose reconstruction projects;
  - Environmental assessments and environmental Impact assessments;



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- Defense Nuclear Facilities Safety Board (DNFSB) composite analysis;
  - CERCLA human health and ecological risk assessments;
  - Natural resource damage assessment;
  - System assessment capability assessments;
  - Waste site cleanup air monitoring network design; and
  - Litigation.
- Support the generation of the annual *Hanford Site Climatological Data Summary* report. The *Hanford Site Climatological Data Summary* shall contain the climatological data (temperature, humidity, precipitation, wind climatology, etc.) obtained during the calendar year.

Specific job positions needed to fulfill the M&CS work scope include the following categories:

### Meteorological and Climatological Services (M&CS)

- Senior Forecaster
- Forecaster

Specific job qualifications and responsibilities the *Subcontractor* shall provide support MSA on a time and material basis include:

<b>POSITION TITLE</b>	<b>Senior Forecaster</b>
<b>QUALIFICATIONS</b>	BA/BS in meteorology, atmospheric science or related discipline, 15 yrs experience in collection and analysis of meteorological and/or climatological data, and short- and long-term weather forecasting, or MA/MS and 10 years experience. Familiarity with the Hanford meteorological monitoring network preferred.
<b>RESPONSIBILITIES &amp; DUTIES</b>	Analyze and interpret meteorological data, reports, maps, and photographs to predict long- and short-range weather conditions, using computer models and knowledge of climate theory, physics, and mathematics. Manage data collection (temperature, wind, humidity and other atmospheric parameters) from the Hanford meteorological monitoring network, satellites, radar, aircraft and weather balloons. Prepare and update daily forecasts, briefings and reports to meet the needs of Hanford site managers and contractors. Operate computer graphic equipment to produce weather reports and maps for analysis, and distribution to users. Issue weather advisories and storm or other severe weather warnings. Provide meteorological data and information to emergency response managers in the event of site alerts or emergencies. Forecast and provide reports on the distribution of airborne contaminants for emergency response planning and practice drills, and during emergencies. Strong oral and written communication skills. As requested, conduct basic or applied meteorological research into the processes and determinants of atmospheric phenomena, weather, and climate.



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<b>POSITION TITLE</b>	<b>Forecaster</b>
<b>QUALIFICATIONS</b>	BA/BS in meteorology, atmospheric science or related discipline, 5 yrs experience in collection and analysis of meteorological and/or climatological data, and short- and long-term weather forecasting, or MA/MS and 2 years experience. Familiarity with the Hanford meteorological monitoring network, or forecasting in similar meteorological environment.
<b>RESPONSIBILITIES &amp; DUTIES</b>	Analyze and interpret meteorological data, reports, maps, and photographs to predict long- and short-range weather conditions, using computer models and knowledge of climate theory, physics, and mathematics. Manage data collection (temperature, wind, humidity and other atmospheric parameters) from the Hanford meteorological monitoring network, satellites, radar, aircraft and weather balloons. Prepare and update daily forecasts, briefings and reports to meet the needs of Hanford site managers and contractors. Operate computer graphic equipment to produce weather reports and maps for analysis, and distribution to users. Issue weather advisories and storm or other severe weather warnings. Provide meteorological data and information to emergency response managers in the event of site alerts or emergencies. Forecast and provide reports on the distribution of airborne contaminants for emergency response planning and practice drills, and during emergencies.

The table below shows the estimated annual hours associated with the M&CS work scope:

<b>Position Title</b>	<b>Hours (Estimated Annual)</b>
<b>Meteorological and Climatological Services</b>	
Senior Forecaster	900-1800
Forecaster	900-1800

## 4.0 REQUIREMENTS

### General

Subcontractor shall operate to MSA policies, procedures and processes. Subcontractor personnel will report to a manager assigned by MSA.

For any work performed on the Hanford Site or any MSA controlled facility, the provisions of the On Site Services Provisions, SP-5, will apply to Subcontractor personnel.

### 4.1 ES&H Requirements



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The Subcontractor shall perform work safely, in a manner that ensures adequate protection for employees, the public, and the environment, and shall be accountable for the safe performance of work. The Subcontractor shall comply with, and assist the Buyer in complying with Environmental, Safety, Health, and Quality (ESH&Q) requirements of all applicable laws, regulations and directives.

The Subcontractor shall exercise a degree of care commensurate with the work and the associated hazards. The Subcontractor shall ensure that management of ES&H functions and activities is an integral and visible part of the Subcontractor’s work planning and execution processes. As a minimum, the Subcontractor shall:

- Thoroughly review the defined scope of work;
- Identify hazards and ES&H requirements;
- Analyze hazards and implement controls;
- Perform work within controls; and
- Provide feedback on adequacy of controls and continue to improve safety management.

The Subcontractor shall flow down ESH&Q requirements to the lowest tier Subcontractor performing work on the Hanford site commensurate with the risk and complexity of the work. The work activities for this statement of work shall be performed in accordance with the following MSA Health and Safety Program and Procedures. The BTR may also specify additional ES&H plans and procedures that are applicable to the work performed by subcontractor.

## APPLICABLE ES&H REQUIREMENTS

	Number	Title
1.	MSC-MP-32219	10 CFR 851 MSA Worker Safety and Health Program Description
2.	MSC-PRAC-30456	Contractor Safety and Health Interaction
3.	MSC-MP-003	Integrated Environment, Safety, Health Management System Description
7.	MSC-PRO-8635	Document Planning

## 4.2 Quality Assurance Requirements

The meteorology program shall be performed in accordance with the requirements identified in the MSA Quality Assurance program documents listed below.

## APPLICABLE QUALITY ASSURANCE STANDARDS

	Number	Title
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1.	MSC-MP-599	Quality Assurance Program Description
2.	MSC-23333	Environmental Quality Assurance Program Plan
3.	MSC-RRD-008	Quality Assurance Implementation Plan for RRD-008

In addition, detailed technical and quality assurance procedures apply to the work included in the PSRP. The BTR will specify training and qualification requirements, and procedures applicable to subcontractors prior to the initiation of the work. Subcontractors shall verify that staff meet qualification requirements, and have completed specified training, prior to beginning work.

### **4.3 Government Property**

It is anticipated that government property managed by MSA will be permitted or required to be used by the Subcontractor to accomplish the statement of work. The BTR will be responsible for procuring and maintaining the required property, and will establish the responsibility of subcontractor employees with regard to use and care. The BTR will maintain a complete listing of the government property to be provided.

## **5.0 PERSONNEL REQUIREMENTS**

### **5.1 Training and Qualification**

- A. Subcontractor shall ensure that its personnel meet and maintain the appropriate training, qualification and certification requirements. Hanford site-specific general training requirements to safely perform this work will be designated by the Buyer's Technical Representative (BTR).
- B. The following types of training qualifications are required:
- C. Subcontractor shall participate in the required training designated by the facility. Subcontractor shall contact the BTR prior to start date for instructions and training requirements. An estimated 8 hours of training to be performed on the first day of the on-site visit.
- D. The Subcontractor must meet the specific requirements per job category defined in Attachment A.

### **5.2 Security and Badging Requirements**

- A. For any on site work, see Special Provisions – On Site Services SP-5 for details.
- B. The Subcontractor shall wear a Buyer-issued security badge identifying himself / herself. A minimum of two working days advance notice is needed for site badging.
- C. Subcontractor employees will be required to submit to vehicle searches and not personally carry or transport certain prohibited articles.



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## **5.3 Work Location/Potential Access Requirements:**

Building 622R and various meteorological monitoring towers located on and off the Hanford site.

## **5.4 Site Access and Work Hours**

The Subcontract shall provide 24 hour support during the 5 day work week. The Subcontractor shall support one (1) shift of operation throughout the weekend.

## **6.0 MEETINGS, SUBMITTALS**

Subcontractor shall participate in all meetings as required by the Buyer's Technical Representative (BTR).

## **7.0 DELIVERABLES, PROJECT CONTROLS, MILESTONES AND PERFORMANCE SCHEDULE REQUIREMENTS**

### **7.1 Deliverables**

The Subcontractor shall develop and submit to MSA the following Deliverable(s) in accordance with a schedule provided by the BTR:

- *Hanford Site Climatological Data Summary (annual)*

MSA will determine the acceptability of the Subcontractor's work through technical review of work products by qualified peers, in accordance with MSA procedures for review.

### **7.2 Schedule**

Start date: 4 April 2011 or later

Completion date: 31 December 2012